

## A. Recent Commission Actions

249. Since enactment of the 1996 Act, the Commission has carried out its statutory mandate by adopting a variety of policies designed to promote competition, remove barriers to investment, and ensure the deployment of advanced telecommunications capability to all Americans.<sup>366</sup> As Congress directed, we have examined demand for advanced services and the current state of deployment, and we have undertaken various efforts to encourage more rapid and widespread deployment of advanced services. We have traveled throughout the country co-sponsoring, along with state regulators, hearings in order to learn about the deployment of advanced telecommunications in varying geographical areas. We have conducted an ongoing federal-state dialogue regarding effective programs to encourage further deployment, and we have explored community efforts to bring high-speed services to all Americans. Our actions have focused on opening up bottlenecks in the market; encouraging the deployment of service to underserved areas; making spectrum available for advanced telecommunications services; and measuring the progress of deployment in all areas of the country. Highlights of our significant actions are detailed below.

250. *Convened a Federal-State Joint Conference.* We convened a Federal-State Joint Conference to provide a forum for an ongoing dialogue between this Commission, the states, and local and regional entities on the deployment of advanced telecommunications capability.<sup>367</sup> Ensuring that advanced telecommunications services will be made available to all Americans is an effort that will be undertaken on various levels—federal, state, local, and regional. The Federal-State Joint Conference on Advanced Telecommunications Services furthers that goal by facilitating the cooperative development of federal, state, and local mechanisms and policies to promote the widespread deployment of advanced services.

251. *Strengthened Our Collocation Rules.* In March 1999, we adopted new rules facilitating the ability of competitive LECs' to provide facilities-based advanced services by placing equipment in incumbent LEC central offices.<sup>368</sup> We specifically required incumbent LECs to expand their collocation offerings to include cageless and adjacent collocation, as well as other physical collocation arrangements.<sup>369</sup> We also required incumbent LECs to allocate the costs of preparing a premises for collocation among potential collocators, rather than making the first collocator in a premises responsible for all site preparation charges.<sup>370</sup>

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<sup>366</sup> 47 U.S.C. § 157(a).

<sup>367</sup> *Federal-State Joint Conference on Advanced Telecommunications Services*, FCC 99-293, Order (rel. Oct. 8, 1999).

<sup>368</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 (1999) (*Advanced Services First Report and Order*), *aff'd in part and remanded in part sub nom. GTE Service Corp. v. FCC*, 205 F.3d 416 (D.C. Cir. 2000) (*GTE v. FCC*).

<sup>369</sup> In a caged physical arrangement, a competitive LEC leases and has direct physical access to caged space at an incumbent LEC structure for its equipment. Cageless physical collocation eliminates the cage surrounding the competitive LEC's equipment. In adjacent physical collocation, the competitive LEC's equipment is located within a controlled environmental vault or similar structure that the competitive LEC or its contractor constructs on property leased from the incumbent LEC.

<sup>370</sup> *Advanced Services First Report and Order* at paras. 50-55.

252. In August 2000, we required that, where a state has not set its own standard or if carriers have not agreed to an alternative standard, an incumbent LEC must provide physical collocation, including cageless collocation, no later than 90 calendar days after receiving a collocation application. In addition, we clarified that an incumbent LEC must allow a competitive LEC to construct a controlled environmental vault or similar structure on land adjacent to an incumbent LEC structure that lacks physical collocation space.

253. *Encouraged the Resale and Unbundling of Advanced Services.* In a variety of decisions, we have unbundled the service elements necessary for competitors to deliver DSL services or have ensured that services are available at a wholesale discount for resale by competitive providers.<sup>371</sup> Ensuring that resellers are able to acquire at wholesale rates the same advanced services sold by incumbent LECs facilitates the ability of competitive carriers to enter the advanced services market.<sup>372</sup> In November 1999, we determined that services sold at retail by incumbent LECs to residential and business end-users are subject to the discounted resale obligation of section 251(c)(4) of the Act.<sup>373</sup> We similarly clarified that DSL services used to provide high-speed Internet access are not subject to the discounted resale obligations of the Act when sold in bulk to ISPs.<sup>374</sup> Additionally, in December 1999, we determined that incumbent LECs are subject to the unbundling obligations in section 251 in connection with the offering of DSL-based advanced services.<sup>375</sup>

254. *Encouraged Competitive Delivery of DSL Services Through Line Sharing.* In November 1999, we required incumbent LECs to provide unbundled access to the high frequency portion of the local loop, thus requiring "line sharing." This will permit competitive LECs to compete with incumbent LECs by providing DSL-based services through existing telephone lines.<sup>376</sup> Additionally, we adopted spectrum management policies that will significantly benefit the rapid and efficient deployment of DSL-based technologies. Our rules encourage the voluntary development of industry standards while limiting the ability of any one class of carriers to impose unilateral and potentially anti-competitive spectrum compatibility rules on other DSL providers.<sup>377</sup>

255. *Established Criteria For Waiving LATA Boundaries Where They Create a Barrier.* We adopted a two-part test that we will apply to requests for LATA boundary modification where such modification is necessary to encourage the deployment of advanced

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<sup>371</sup> See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, FCC 99-330, Second Report and Order, para. 3 (rel. Nov. 9, 1999) (*Advanced Services Second Report and Order*); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Remand, 15 FCC Rcd 385, 389, paras. 2-3 (1999) (*Advanced Services Order on Remand*).

<sup>372</sup> *Advanced Services Second Report and Order* at para. 20.

<sup>373</sup> See *Advanced Services Second Report and Order* at para. 20.

<sup>374</sup> *Id.*

<sup>375</sup> *Advanced Services Order on Remand* at paras. 2-3.

<sup>376</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Third Report and Order and Fourth Report and Order, 14 FCC Rcd 20912, 20913, para. 4 (1999).

<sup>377</sup> *Id.*

services.<sup>378</sup> We will grant such LATA modification petitions when the modification is necessary to encourage the deployment of advanced services on a reasonable and timely basis and when the modification would not materially affect the BOC's incentive to enter the interexchange marketplace pursuant to section 271.<sup>379</sup> Although no applications have been filed thus far, we intend to grant qualifying requests to ensure that advanced telecommunications services are provided to all Americans on a reasonable and timely basis.<sup>380</sup>

256. *Ensured that Competing Providers Receive Non-Discriminatory Access to Facilities and Services.* In approving the recent mergers of SBC/Ameritech and Bell Atlantic/GTE, we adopted merger conditions requiring both firms to establish one or more separate affiliates to provide all advanced services within their traditional service areas. Separate affiliates provide a structural mechanism to ensure that competing advanced services providers receive effective, nondiscriminatory access to the facilities and services of the merged firm's incumbent LECs that are necessary to provide advanced services.

257. *Encouraged Deployment of Wireline and Wireless Service to Tribal Areas:* On June 30, 2000, the Commission moved to promote telecommunications subscribership and infrastructure deployment within American Indian and Alaska Native tribal communities.<sup>381</sup> Recognizing that telephone penetration levels on tribal lands fall below the national average, the Commission modified the low-income universal service programs to target additional support to consumers living in those areas. Additionally, we expanded the bidding credits available to winning wireless auction bidders that provide service on certain tribal lands.<sup>382</sup> These steps are intended to create financial incentives for carriers to serve, and deploy facilities in, areas that previously may have been regarded as high risk and unprofitable. By enhancing tribal communities' access to affordable telecommunications services, the Commission aims to increase their access to education, commerce, government, and public services.

258. *Established a Data Collection Effort.* In March 2000, we established a comprehensive reporting requirement for providers of high-speed services in order to seek greater insight into the development of high-speed markets within particular geographic areas.<sup>383</sup> In doing so, we required semi-annual reports, for the next five years, by any facilities-based firm that provides at least 250 high-speed service lines or wireless channels in a given state or that has at least 250 high-speed customers in a given state. This data will permit the Commission to track advances in high-speed deployment.

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<sup>378</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 3089 (2000).

<sup>379</sup> *Id.* at 3092, para. 18.

<sup>380</sup> 14 FCC Rcd at 20918, para. 25.

<sup>381</sup> *Federal-State Joint Board on Universal Service; Promoting Deployment and Subscribership in Unserved Areas, Including Tribal and Insular Areas*, Twelfth Report and Order, Memorandum Opinion, and Order, and Further Notice of Proposed Rulemaking, FCC 00-208 (rel. June 30, 2000).

<sup>382</sup> *See Extending Wireless Telecommunications Services to Tribal Lands*, WT Dkt. No. 99-266, Report & Order and Further Notice of Proposed Rulemaking, FCC 00-209 (rel. June 30, 2000).

<sup>383</sup> *See Local Competition and Broadband Reporting*, Report and Order, 15 FCC Rcd 7717 (2000).

259. *Encouraged Further Competition in the International Submarine Cable Market.* In response to recent growth in the number and capacity of submarine cables, we presented proposals to further streamline our licensing processes and promote competition in the Internet-driven submarine cable market. These proposals reflect our recognition of the need to move with the swift pace of the market and to tailor Commission licensing processes to encourage rapid, facilities-based entry by multiple firms that can bring increased capacity to the market.

260. *Promoted Wireless high-speed service.* In May 1999, we completed a successful auction of LMDS licenses that can be used to provide a variety of advanced wireless services, including two-way high-speed services and high-speed Internet access.

261. Additionally, in June 2000, we removed the eligibility restriction imposed upon incumbent LECs and cable operators with respect to LMDS spectrum that is used primarily for the deployment of fixed wireless high-speed applications.<sup>384</sup> Imposed in 1997, the restriction prohibited incumbent LECs from having an attributable interest in a LMDS license that overlaps with ten percent or more of the population in their service areas. This change will improve the availability of LMDS services, including advanced services, particularly in rural areas.

262. We also are taking steps to ensure that multiple service providers are able to gain access to the last 100 feet of the network, thus encouraging competition in the market for high-speed wireless services. For instance, in the *Competitive Networks NPRM*, we sought comment on our tentative conclusion to prohibit carriers from entering into exclusive contracts with building owners, thus preventing scenarios in which a monopoly or duopoly can stifle competition by preventing competitors from accessing the facilities necessary for deployment of alternative services.

263. In June 2000, we established a filing window for applicants to apply for authority to provide two-way MDS services. We expect that the resultant authorization of two-way MDS operations will speed the deployment of advanced services by permitting service providers to offer a variety of fixed wireless high-speed services more rapidly.<sup>385</sup>

264. *Adopted the Over-the-Air Reception Devices Rule.* As directed by Congress, the Commission in 1996 adopted the Over-the-Air Reception Devices Rule (OTARD) concerning restrictions on viewers' ability to receive video programming signals.<sup>386</sup> OTARD prohibits certain restrictions on the installation, maintenance, or use of antennas used to receive video programming. The rule applies to video antennas including TV antennas, wireless cable antennas, and direct-to-home satellite dishes less than one meter in diameter, or any size in Alaska. Providers that offer high-speed access and video programming (*i.e.*, DirecPC and MDS operators) to avoid restrictions on the installation of the antennas or other devices necessary for

<sup>384</sup> See *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Predesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service for Fixed Satellite Services*, Third Report and Order and Memorandum Opinion and Order, FCC 00-223 (rel. June 27, 2000).

<sup>385</sup> See *Mass Media Bureau Provides Further Information on Application Filing Procedures and Announces Availability of Electronic Filing for Two-Way Multipoint Distribution Service and Instructional Television Fixed Service*, Public Notice, DA 00-1481 (rel. June 30, 2000).

<sup>386</sup> 47 C.F.R. § 1.4000.

such service.

265. We are confident that the effect of these programs has been and will be to increase the level of competition in the markets for all types of advanced services. With a foundation of competition in these markets, particularly with regard to the last mile, the middle mile, and the last one hundred feet, we believe that the deployment of advanced telecommunications capability to all Americans will follow.

266. In addition, several other entities—both public and private—are working to implement initiatives designed to spur the deployment of advanced telecommunications services. In highlighting some of these efforts, we recognize that widespread deployment of advanced services will occur more rapidly if we work with other federal agencies, state and local governments, and private entities. State public utility commissions and governments, for instance, have implemented a variety of approaches to promote access to advanced telecommunications capability. Similarly, several federal agencies conduct programs focused on encouraging high-speed deployment: For example, the NTIA operates a Technology Opportunities Program, which awards grants to public and non-profit entities; the Rural Utility Service of the Department of Agriculture provides loan for telecommunications infrastructure; and the Department of Education provides technology training to working-class families.<sup>387</sup>

## **B. Commission Actions Under Consideration**

267. In accordance with our statutory mandate, we are committed to ensuring that advanced services become available to all Americans. Above, we have reached the disturbing conclusion that market forces alone may not ensure that various categories of Americans – including rural, low-income, people with disabilities and minority populations – will receive access to advanced services in a timely manner. In addition, we believe we should further promote high-speed services to classrooms and to telemedicine facilities. While much of our analysis in this report has focused on the presence of infrastructure with advanced telecommunications capability, we believe that true access to this technology must also take into account affordability of the services provided over the infrastructure. We believe the recommendations outlined below, many of which are already underway in separate dockets, will promote access to these services by consumers we have identified as being particularly vulnerable to untimely access. The following recommendations accomplish this by encouraging competition, promoting infrastructure investment and addressing the affordability of advanced services.

- We are considering a modification of our collocation rules to ensure competitive access to incumbent LEC remote premises.<sup>388</sup> As fiber is pushed further into the local loop and customers are increasingly served through remote terminals, we recognize the need to ensure that competition is not stifled by the ability of incumbents to control access to remote devices where DSL technology may be installed.
- We are also considering streamlining the approval process for both fixed wireless high-speed

<sup>387</sup> See *NTIA/RUS Report* at 36-38.

<sup>388</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Reconsideration and Further Notice of Proposed Rulemaking, FCC 00-293 (rel. Aug. 4, 2000).

equipment and customer premises equipment. Previously, we streamlined the process to permit manufacturers to self-verify that point to point fixed wireless high-speed equipment complied with Commission rules.<sup>389</sup> We also previously established processes for private telecommunications certification bodies to certify equipment as compliant with Commission rules.<sup>390</sup> We proposed to permit point to multipoint equipment, typically used for services such as LMDS, to be self-verified.<sup>391</sup> In addition, we have proposed to streamline and privatize the equipment approval process for customer premises equipment currently regulated by Part 68 of our rules.<sup>392</sup> Streamlining equipment approval processes permits more rapid production and deployment of high-speed equipment, further spurring investment in advanced technologies.

- We will continue to work closely with the states to consider whether changes can be made to the current high-cost mechanism to encourage the deployment and maintenance of the network infrastructure necessary to support advanced telecommunications capability.
- Working with the states, we will begin considering whether we should create a universal service mechanism to promote broadband deployment and what such mechanisms should be. In examining this issue, we will look closely at whether the various state and local initiatives can be replicated elsewhere.
- The Joint Board recently recommended that we reexamine the Commission's rule governing the transfer of universal service support when one carrier purchases local telephone exchanges from another carrier.<sup>393</sup> Under our current rules, the purchasing carrier receives the same per-line support that the selling carrier was receiving for the exchanges at the time of the sale.<sup>394</sup> In reviewing this rule, we will consider whether alternative transfer rules might encourage rural carriers to purchase rural exchanges from large incumbent LECs and to upgrade the acquired facilities to accommodate the provision of advanced telecommunications services.
- In developing a comprehensive approach to access charge reform for rate-of-return telephone companies, which are generally the small, rural incumbent carriers and to universal service reform for the rural carriers, we will consider developing an incentive-based approach for

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<sup>389</sup> See *Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services*, Report and Order, 11 FCC Rcd 13449 (1996).

<sup>390</sup> See *1998 Biennial Regulatory Review—Amendment of Parts 2, 25, and 68 of the Commission's Rules to Further Streamline the Equipment Authorization Process for Radio Frequency Equipment, Modify the Equipment Authorization Process for Telephone Terminal Equipment, Implement Mutual Recognition Agreements, and Begin Implementation of the Global Mobile Personal Communications by Satellite (GMPCS) Arrangements*, Report and Order, 13 FCC Rcd 24687 (1998).

<sup>391</sup> See *Reorganization and Revision of Parts 1, 2, 21, and 94 of the Commission's Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 15 FCC Rcd 3129 (2000).

<sup>392</sup> *2000 Biennial Regulatory Review of Part 68 of the Commission's Rules and Regulations*, Notice of Proposed Rulemaking, FCC 00-171 (rel. May 22, 2000).

<sup>393</sup> *Federal-State Joint Board on Universal Service*, Recommended Decision, FCC 00J-1 (released June 30, 2000).

<sup>394</sup> 47 C.F.R. §54.305.

these companies to use current revenues for investment in high-speed infrastructure.<sup>395</sup>

- We will also continue our commitment to the E-rate. Based on annual demand, the E-rate mechanism is currently funded at the maximum amount permitted under Commission rules, \$2.25 billion. In addition, we will consider reviewing the program to determine whether it can do even more to promote high-speed connections in schools, libraries and through those locations, to the surrounding communities.
- We will consider reviewing our rules to determine whether we can do more to support high-speed connections to eligible rural health care facilities in insular areas.
- We will initiate a proceeding on the issue of multiple Internet service providers' access to cable operators' infrastructure for delivery of advanced services.<sup>396</sup> The purpose of the new proceeding will be to establish the national policy on this question and bring certainty to the marketplace.
- We are also committed to promoting flexible spectrum use, including facilitating the ability of providers to combine different spectrum bands to tailor wireless high-speed services to the needs of particular localities. Combining different bands could be an efficient and cost-effective means to provide seamless end-to-end service. We can create opportunities for the market to determine how to best use spectrum for high-speed infrastructure in at least three unique ways: flexible spectrum allocations and auctions, increased spectrum availability through secondary market transactions and development of new technologies.<sup>397</sup>
- In addition to the spectrum currently allocated and used for wireless high-speed services discussed above, we have proposed the allocation and/or auction of several hundred megahertz of spectrum throughout the communications spectrum range. The spectrum currently proposed for allocation at 3650-3700 MHz could be used for both fixed wireless high-speed last mile services and high-speed middle mile connections<sup>398</sup>; and spectrum at 4940-4990 MHz is suitable for medium distance high-speed middle mile connections.<sup>399</sup> We are considering allocating for unlicensed services, certain spectrum at 51-71 GHz, which is

<sup>395</sup> *Ex parte* letter from David Cohen, United States Telecom Association, filed on behalf of USTA, NRTA, NCTA, and OPASTCO, to Magalie Roman Salas, Secretary, Federal Communications Commission (Mar. 17, 2000).

<sup>396</sup> The United States Internet Industry Association (USIIA) filed a petition with the FCC on July 7, 2000, requesting that the Commission require cable operators offering cable Internet service to open their platform to competitors. See *Telecommunications Service Via "Cable Internet," United States Internet Industry Association ("USIIA"), Petitioner*, Petition for Declaratory Rulemaking, and Institution of Rulemaking with Respect to Tariffs for Cable Internet Interconnectivity, filed Jul. 7, 2000.

<sup>397</sup> See *Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium*, Policy Statement, 14 FCC Rcd 19,868 (1999) (*Spectrum Reallocation Policy Statement*).

<sup>398</sup> See *Amendment of the Commissions Rules with Regard to the 3650-3700 MHz Government Transfer Band*, Notice of Proposed Rulemaking and Order, 14 RCC Rcd. 1295 (1998).

<sup>399</sup> See *in the Matter of the 4.9 GHz Band Transferred from Federal Government Use*, Notice of Proposed Rulemaking, 15 FCC Rcd 4778 (2000).

capable of supporting short distance terrestrial high-speed service.<sup>400</sup> Additional spectrum at 1710-1750 MHz and 2110-2150, and some government transfer spectrum planned for allocation can also support high-speed services.<sup>401</sup>

- The auction process for spectrum at 700 MHz will commence in the Spring of 2000. Recovered from analog broadcasters operating on channels 60-69, this spectrum can support high-speed middle mile, last mile, and last one hundred feet services, depending upon system configurations. Auctions are also planned for more 24 MHz (formerly DEMS) spectrum.<sup>402</sup>
- Although its use requires no action on our part, we note that unlicensed spectrum at 900 MHz, 2.4 GHz spread spectrum, and the 5.8 GHz UNII band are all capable of supporting high-speed middle miles, last miles, and last 100 feet, depending upon design configurations.<sup>403</sup> Although unlicensed operations have no legal protection from electromagnetic interference, this “free” spectrum is uniquely affordable and suitable for non-critical high-speed communications.
- We are also examining how best to encourage the development of secondary markets for spectrum. Such markets have the potential to significantly reduce the cost of spectrum based services.<sup>404</sup>
- We are committed to examining the potential of new technologies such as ultra-wideband and software defined radios, both of which enable increased use of spectrum.<sup>405</sup> We will also review existing regulations and licensing policies for satellite and wireless systems that share spectrum bands to ensure that spectrum can be made available to all parties in an efficient and effective manner. In doing so, we will address the full range of public interest issues associated with licensing these services, including benefits to consumers and the impact on other services.<sup>406</sup> In the 18 GHz Proceeding, for instance, we designated spectrum for primary use by satellite systems so that we could adopt a blanket licensing regime for satellite earth stations. This action will facilitate mass market deployment of the next

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<sup>400</sup> See *Amendment of Part 2 of the Commission's Rules to Allocate Additional Spectrum to the Inter-Satellite, Fixed, and Mobile Services and to Permit Unlicensed Devices to Use Certain Segments in the 50.2-50.4 GHz and 51.4-71.0 GHz Bands*, Notice of Proposed Rulemaking, 14 FCC Rcd 12473 (1999).

<sup>401</sup> *Spectrum Reallocation Policy Statement*, 14 FCC Rcd 19868.

<sup>402</sup> See *Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report & Order, FCC 00-272 (rel. Aug. 1, 2000).

<sup>403</sup> Last 100 feet configurations tend to employ low power short-range omnidirectional antenna, whereas middle-mile configurations tend to employ maximum power (1 watt) with high-gain point-to-point directional antenna.

<sup>404</sup> See *Spectrum Reallocation Policy Statement*, 14 FCC Rcd 19868.

<sup>405</sup> See *Amendment of Part 15 of the Commission's Rules Regarding Spread Spectrum Devices*, Notice of Proposed Rulemaking, 14 FCC Rcd 13046 (1999); *Inquiry Regarding Software Defined Radios*, Notice of Inquiry, 15 FCC Rcd 5940 (2000).

<sup>406</sup> See, e.g., *Onsat Petition for Declaratory Order, Waiver and Request for Expedited Action*, File No. SAT-PDR-19990910-00091, Public Notice Report No. SA- 00026 (rel. Sept. 23, 1999); *Commission Launches Earth Station Streamlining Initiative*, Public Notice, DA 99-1259 (rel. June 25, 1999); *FWCC Requests Concerning Licensing and Loading Standards for Earth Stations in the Fixed-Satellite Service*, RM-9649, Public Notice Report No. 2334 (rel. June 11, 1999).

generation of satellite high-speed service.<sup>407</sup>

- We will also consider granting waivers of the commercial mobile radio service (CMRS) spectrum aggregation limit to CMRS providers where the limit proves to be an impediment to the deployment of Third Generation (3G) or other advanced services.<sup>408</sup>
- The FCC currently permits Direct Broadcast Satellite providers to utilize up to 50% of their capacity for ancillary services.<sup>409</sup> Such ancillary services could include high speed digital services. We will consider further relaxing limits on use of ancillary services.
- We will continue to adopt pro-competitive policies governing the use of cable wiring inside multiple dwelling units. To facilitate competition from alternative providers, we have established rules that govern the disposition of the incumbent cable operator's wiring once it no longer has a right to serve multiple dwelling units.<sup>410</sup> We are currently considering whether additional measures are necessary to enhance the ability of service providers to use existing cable wiring to offer traditional and advanced services to residents of multiple dwelling units.<sup>411</sup>
- We will use the enforcement authority available to us to ensure that any advanced services or components of advanced services that are covered by our section 255 rules fully comply with those disability access requirements.
- We will continue to assess the accessibility of advanced services networks to people with disabilities in order to determine if further regulatory action is warranted. For example, we are currently inquiring into the accessibility of IP telephony to persons with disabilities and will soon release our report on that issue.
- Recognizing that whether persons with disabilities have access to advanced services infrastructure increasingly includes evolving equipment and technologies, we are monitoring the new types of equipment networks so that our policies and rules remain current with

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<sup>407</sup> See *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz Frequency Bands for Broadcast Satellite Service Use*, Report and Order, FCC 00-212 (rel. June 22, 2000).

<sup>408</sup> See *1998 Biennial Regulatory Review—Spectrum Aggregation Limits for Wireless Telecommunications Carriers*, Report and Order, FCC 99-224, para. 82 (rel. Sept. 22, 1999). Carriers are generally permitted to hold attributable interests in up to 45 MHz of CMRS spectrum, with a higher limit of 55 MHz in rural areas.

<sup>409</sup> See *DBS Auction Order*, 11 FCC Rcd 9712, para. 17 (1995). See also *Petition of United States Satellite Broadcasting Company, Inc. for Declaratory Ruling Regarding Permissible Uses of the Direct Broadcast Satellite Service*, 1 FCC Rcd 977, 977 (1986).

<sup>410</sup> See 47 C.F.R. §§ 76.804-76.805; see also 47 C.F.R. §§ 76.801-76.802 (disposition of wiring within a residence).

<sup>411</sup> See *Telecommunications Services - Inside Wiring*, Report and Order and Second Further Notice of Proposed Rulemaking, 13 FCC Rcd 3659 (1997) (*Cable Home Run Wiring R&O*).

emerging technologies and do not simply react to them.<sup>412</sup>

- We will consider improving the data we collect on broadband services so that we may better understand deployment within zip codes, the speed of connections available to individual classrooms, the role of small service providers, and private line networks.

### C. Additional Actions

268. During the course of our field hearings and analyses, we have received an array of recommendations that may have considerable potential to encourage investment in and stimulate demand for advanced telecommunications capability. We believe that these recommendations should be considered by the appropriate authorities.

- *Compile and Disseminate Additional Data.* In addition to the data we collect states and other entities may find it useful to collect other information regarding providers in their states.
- *Programs Designed to Stimulate Demand.* Demand for services drives deployment of advanced telecommunications capability, and, thus, programs designed to increase consumers' interest in, and use of, advanced technologies and services will likely spur further deployment. There are several types of programs that may be able to help increase consumer demand.
  - Grant programs to assist state, local, and tribal governments, health care providers, schools, and community-based organizations with technology purchases and training (*e.g.*, NTIA's Technology Opportunities Program).
  - Technology education programs to increase consumer use of the many resources available on the Internet, such as access to health care information and education.
  - Programs to stimulate computer ownership and home Internet access.
  - Technology skills and career programs.
  - Technology education programs designed to teach business customers how e-commerce and Internet technology can affect their businesses.
  - Programs to promote telemedicine applications.
  - Tax credits for businesses with high telecommunications demand to local in rural and other underserved areas.
- *Reduce the Cost of Deployment.* Programs designed to reduce the cost and risk of deploying advanced telecommunications capability should increase incentives for investment in necessary infrastructure. Programs that have been suggested include the following:
  - Low-interest loans for service providers and builders of infrastructure to support advanced

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<sup>412</sup> Additional expert advice in this area is provided to us by the FCC's Technological Advisory Council, which was convened in 1999. See *FCC Requests Nominations for Membership on the Technical Advisory Council*, Public Notice, DA-98-8024 (rel. Dec. 1, 1998).

telecommunications capability.

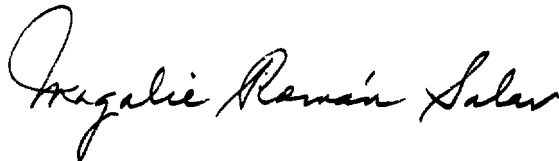
- Loan guarantees for builders of infrastructure to support advanced telecommunications capability.
- Tax credits for service providers investing in high-speed facilities.
- Sales tax credits for equipment used to deliver advanced telecommunications capability.
- *Integrate Telecommunications and Economic Development Policies.*
- Develop a better understanding of the role of telecommunications infrastructure in business expansion and location decisions.
- Incorporate telecommunications policy into economic development plans at the state and local levels.

*Increase Funding for Technological and Telecommunications Research and Development, Particularly for Technological Solutions to Serving Remote and Low Demand Areas.*

## VII. ORDERING CLAUSE

269. Accordingly, IT IS ORDERED that, pursuant to section 706 of the Telecommunications Act of 1996, this Report is ADOPTED

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas,

Secretary